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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,886	09/19/2008	Andrew Ward-Askey	3004535-7049118001	9925

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BINGHAM MCCUTCHEN LLP
Three Embarcadero Center
San Francisco, CA 94111-4067

EXAMINER

FAISON GEE, VERONICA FAYE

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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07/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,886	Applicant(s) WARD-ASKEY ET AL.	
	Examiner VERONICA FAISON GEE	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 6 appears to be broader than claim 5 from which claim 6 depends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekioka et al (US Patent 6,899,752) in view of EP 0 846 569.

Sekioka et al teach a heat sensitive ink composition that is formed by separately dispersing a developer (such as phenol compound with one or more phenolic hydroxyl groups) and a coloring agent (leuco dye, fluorane dye, etc) in a binder composed of a water-soluble polymer (polyvinyl alcohol) and then adding and mixing therewith as necessary various aids such as sensitizing agents, fillers, waxes, lubricants, for improved coloring sensitivity. The reference further teaches a layer of the heat sensitive ink composition is formed by using a coater for coating above the substrate by using a

Art Unit: 1793

coater for coating (col. 7 lines 45-58). The reference fails to teach 3-dibutylamino-6-methyl-7-anilino-fluoran, bisphenol A and dimethyl terephthalate.

EP 0 846 569 teaches a coating composition comprising a color forming system which comprises chromogenic material (electron-donating dye) and acidic developer material; polymeric binder material, surface active agents and other additives in an aqueous medium. The composition can additionally contain inert pigments, such as clay, talc, aluminum hydroxide, calcined kaolin clay, and calcium carbonate (page 3 lines 24-27, 47-50). The reference further teaches that the electron-donating dye may comprise 3-dibutylamino-6-methyl-7-anilino-fluoran and the developer may be Bisphenol A (page 4 lines 8-41). The reference discloses that a dispersion of a particular system component has a particle size of between about 1 microns and 10 microns. The examples disclose that sensitizer may be dimethylterephthalate.

The references remain silent the particle size of the pigment. However, the particle size of pigment that may be acceptable is dependent on upon the use of the composition and one of ordinary skill what particle is suitable for the intended use, as evident by the particles size of the dispersion.

With regards to claims 5 and 6, when general conditions (particle size of solids) are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by changing the size, shape, proportion of shape, degree and sequence of added ingredients through routine experimentation. (In re Rose, 105 USPQ 137; In re Aller 220F, 2d 454, 105 USPQ 233,235 (CCPA 1955); In re Dailey et al., 149 USPQ 47; In re Reese, 129 USPQ 402; In re Gibson, 45 USPQ 230).

Therefore it would have been obvious to one of ordinary skill in the art to use the teach 3-dibutylamino-6-methyl-7-anilino-fluoran, bisphenol A and dimethyl terephthalate as taught by EP 0 846 569 in the composition of Sekioka et al because Sekioka et al broadly discloses a color former, developer and sensitizer.

Claims 1-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 846 569.

EP 0 846 569 is described above, but fails to specifically exemplify the use of the combination of 3-dibutylamino-6-methyl-7-anilino-fluoran, bisphenol A and dimethyl terephthalate as claimed by applicant. See examples for method of preparing a thermal ink. Therefore, it would have been obvious to one of ordinary skill in the art to use of 3-dibutylamino-6-methyl-7-anilino-fluoran, bisphenol A and dimethyl terephthalate as claimed by applicant as EP 0 846 569 also discloses the use of combination of 3-dibutylamino-6-methyl-7-anilino-fluoran, bisphenol A and dimethyl terephthalate but shows no example incorporating them.

The reference remain silent the particle size of the pigment. However, the particle size of pigment that may be acceptable is dependent on upon the use of the composition and one of ordinary skill what particle is suitable for the intended use, as evident by the particles size of the dispersion.

When general conditions (particle size of solids) are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by changing the size, shape, proportion of shape, degree and sequence of added ingredients through routine experimentation. (In re Rose, 105 USPQ 137; In re Aller 220F, 2d 454, 105 USPQ

Art Unit: 1793

233,235 (CCPA 1955); In re Dailey et al., 149 USPQ 47; In re Reese, 129 USPQ 402; In re Gibson, 45 USPQ 230).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERONICA FAISON GEE whose telephone number is (571)272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit 1793

/Veronica Faison-Gee/
Examiner, Art Unit 1793

Application/Control Number: 10/573,886
Art Unit: 1793

Page 6